

Name _____ Ch 8 Test Study Guide AE

What is the law of conservation of matter?

What are the reactants and products of a chemical reaction?

What are the four observations that indicate a chemical reaction?

Make a list of the symbols used to indicate the state of each reactant and product in a chemical reaction.

Write balanced formula equations for the following reactions

1. potassium chloride + silver nitrate \rightarrow potassium nitrate + silver chloride

2. aluminum hydroxide + sodium nitrate \rightarrow aluminum nitrate + sodium hydroxide

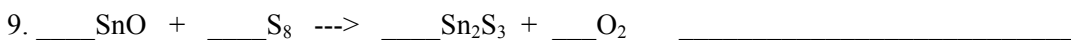
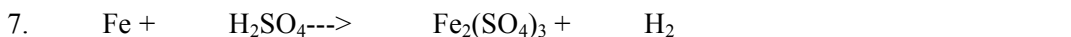
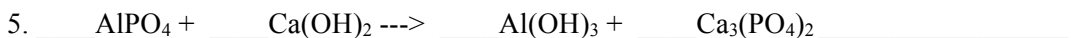
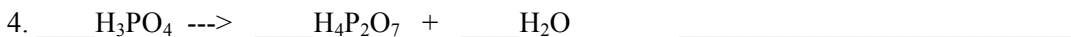
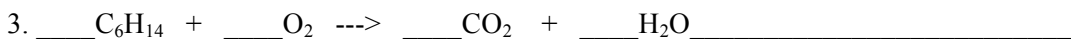
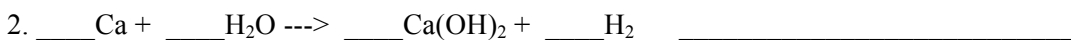
3. iron metal + copper (II) sulfate \rightarrow iron (II) sulfate + copper metal

4. aluminum metal + cupric chloride \rightarrow aluminum chloride + copper metal

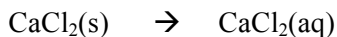
5. sodium chlorate \rightarrow sodium chloride + oxygen gas

6. butane (C_4H_{10}) + oxygen \rightarrow water + carbon dioxide

Balance the following chemical reactions and indicate the reaction type.

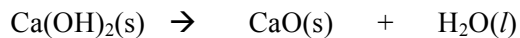


Answer the following questions about the reactions below.



What is taking place in the reaction above? Is it a chemical or physical change? Why?

What is needed to make that process happen, but not shown in the reaction itself? Why?



Is the process above a chemical or physical change? Why?

Why is water shown in this equation, but not in the equation above it?